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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/536,740

11/07/2005

Akihiro Shakagori

F-8691

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06/08/2007

EXAMINER

FRISTOE JR, JOHN K

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

06/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/536,740

Applicant(s)

SHAKAGORI ET AL.

Examiner

John K. Fristoe Jr.

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 27 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 4-8 have been considered but are moot in view of the new ground(s) of rejection. Since the new grounds of rejection were necessitated by Applicants' amendment the instant Office action has been made final.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,289,297 (Nakamishi) in view of engineering expedient and U.S. Pat. No. 3,071,343 (Milleville). Nakamishi discloses a seat ring comprising a hollow cylindrical body (1), two side portions (outer sides of element 1 in figure 3) having a flange surface (outside surface of the outside flanges of element 1 in figure 3), the outer circumference of the body portion (1) has an elliptical shape (col. 5, lines 64-68), wherein the inner circumference has a circular shape (within element 1 in figure 3), an annular protrusion (flange portions extending from element 1 in figure 1) having a rectangular shape (figure 3), two stem through holes (4), a boss portion (5), a lug portion (inward projecting portions of element 1 in figure 3), and a ring (6) but lacks the ratio of the thickness dimension in a direction perpendicular to the stem axis from the inner circumference is 1:01 to 2:1 as well as an annular protrusion protruding radially outwardly from an axial center of said outer circumference of the body portion.

Regarding the ratio of thickness, one of ordinary skill in the art of butterfly valve design would manufacture a seat ring that would cooperate with the existing conduits which could encompass having an inner circumference that has a thickness ration of 1:01:1 to 2:1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the seat ring of Nakamishi by making the ratio of the thickness of the valve body between 1:01:1 to 2:1 as engineering expedient in order to cooperate with n existing conduit with those dimensions.

Regarding the annular protrusion, Milleville teaches an annular body member (124) having an annular protrusion (139) extending from the axial center of the outer circumference (figure 1) of the body portion (124). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the seat ring of Nakamishi by adding an annular protrusion extending from an axial center of the body portion as taught by Milleville in order to secure the seat ring axially centered in the valve bore.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,289,297 (Nakamishi) in view of engineering expedient and U.S. Pat. No. 3,071,343 (Milleville) as applied to claim 1 above, and further in view of U.S. Pat. No. 5,876,015 (Schaeffer et al.). Nakamishi modified above, discloses a seat ring comprising a hollow cylindrical body (1), two side portions (outer sides of element 1 in figure 3) having a flange surface (outside surface of the outside flanges of element 1 in figure 3), the outer circumference of the body portion (1) has an elliptical shape (col. 5, lines 64-68), wherein the inner circumference has a circular shape (within element 1 in figure 3), an annular protrusion (flange portions extending from element 1 in figure 1) having a rectangular shape (figure 3), two stem through holes (4), a boss portion (5), a lug

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portion (inward projecting portions of element 1 in figure 3), and a ring (6) but lacks the seat ring made of EPDM. Schaeffer et al. teaches a butterfly valve comprising a seat ring (42) made of EPDM (col. 14, lines 15-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the seat ring of Nakamishi by making the seat ring from EPDM as taught by Schaeffer et al. in order for the valve seat to be flexible and easy to insert into the seat assembly.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Fristoe Jr. whose telephone number is (571) 272-4926. The examiner can normally be reached on Monday-Friday, 7: 00 a.m-4: 30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric S. Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John K. Fristoe Jr./
John K. Fristoe Jr.
Examiner
Art Unit 3753

JKF



ERIC KEASEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700